additional storage device, the parity strips are rotated amongst the N+1 information storage devices in accordance with a RAID-5 architecture, the method further comprising moving selected parity strips to the additional information storage device at locations that would have stored parity strips had the array originally comprised N+2 information storage devices.

6. (Original) The method of claim 5, wherein the data and parity strips are moved to the additional storage device during normal IO operations to the devices.

7. (Original) The method of claim 5, wherein a background task is defined by the controller to move the data and parity strips to the additional storage device.

8. (Previously Amended) The method of claim 6, wherein a bitmap is defined by the controller, each bit of the bitmap representing an array stripe and indicating whether the data and parity strips of the stripe are located in their original position or in the position appropriate to the plurality of information storage devices including the additional information storage device .

9. (Original) The method of claim 1, wherein the additional information storage device is initialised to all binary zeros prior to connection to the controller.

10. (Original) The method of claim 1, further comprising connecting a plurality of additional information storage devices to the log-structured array controller and logically appending the additional strips, provided to each existing stripe by the additional storage devices, to the end of each stripe in the LSA directory.

11. (Currently Amended) The method of claim 1, wherein connecting the additional information storage device to the LSA controller further comprises:

initializing the new disk to all binary zeroes so that the new disk can be included in the parity calculations without modifying the parity already on disk;

temporarily suspending accesses to a RAID 5 array controlled by the LSA controller and flushing any data cached by the RAID array ~~prior to temporarily suspending access~~;

adding the new disk as a member of the RAID array; and

applying an algorithm to optionally relocate the parity and/or the data.

12. (Currently Amended) A log structured array (LSA) controller comprising a logic device configured to control the transfer of information between a processor and a plurality of information storage devices in which the information is stored as a plurality of stripes extending across the plurality of storage devices ~~of the array~~, and further configured upon the addition of a new information storage device to the array, to logically append to the end of each stripe in a directory a new strip provided for the new information storage device, the directory specifying storage locations using ~~relative addresses~~ a construct comprising a stripe number and an offset.

13. (Original) The LSA controller of Claim 12, wherein the plurality of information storage devices are configured as an N+1 array.

14. (Original) The LSA controller of Claim 12, wherein each stripe comprises N information strips and one parity strip, each information strip storing an integer number of logical tracks.

15. (Previously Amended) The LSA controller of Claim 12, wherein the directory further comprises an LSA directory specifying the location of a logical track in terms of the ID of the stripe to which the track belongs and the offset of the track within the stripe.

16. (Currently Amended) A log structured array (LSA) controller for adding an information storage device to a plurality of information storage devices in an information processing system in which a processor is connected for communication with the information storage devices by means of a log structured array (LSA) controller in which the information is stored as a plurality of stripes extending across the plurality of storage devices ~~of the array~~, the LSA controller comprising:

a directory which specifies storage locations using ~~relative addresses~~ a construct comprising a stripe number and an offset;

means for connecting the additional information storage device to the LSA controller; and means for logically appending an additional strip provided to each existing stripe by the additional storage device to the end of each stripe in the directory.

17. (Previously Amended) The log structured array (LSA) controller of claim 16, further comprising means for configuring the plurality of information storage devices as an N+1 array.

18. (Previously Amended) The log structured array (LSA) controller of claim 16, wherein each stripe comprises N information strips and one parity strip, each information strip storing an integer number of logical tracks.

19. (Previously Amended) The log structured array (LSA) controller of claim 16, wherein the directory comprises a LSA directory which specifies the location of a logical track in terms of the ID of the stripe to which the track belongs and the offset of the track within the stripe.

20. (Currently Amended) An information storage system comprising:

a plurality of information storage devices;

a processor connected for communication with the information storage devices by means of a log structured array (LSA) controller in which the information is stored as a plurality of stripes extending across the plurality of storage devices ~~of the array~~,

an LSA controller comprising a directory which specifies storage locations using ~~relative addresses~~ a construct comprising a stripe number and an offset, the LSA controller configured to connect an additional information storage device to the LSA controller and logically append an additional strip provided to each existing stripe by the additional storage device to the end of each stripe in the directory.

21. (Original) The information storage system of claim 20, wherein the plurality of information storage devices comprise an N+1 array.

22. (Original) The information storage system of claim 20, wherein each stripe comprises N information strips and one parity strip, each information strip storing an integer number of logical tracks.